



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant
DATE: May 23, 2006
RE: Standard Motor Products / 141-22812-00559
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FN-REGIS.dot 03/23/06



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204-2251
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Mr. Terry Seeders
Standard Motor Products, Inc.
1718 North Home Street
Mishawaka, Indiana 46545

May 23, 2006

Re: Registered Operation Status,
141-22812-00559

Dear Mr. Seeders:

The application from Standard Motor Products, received on March 17, 2006, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following automotive ignition wire set manufacturing operations, located at 1718 North Home Street, Mishawaka, Indiana, are classified as registered:

- (a) One (1) natural gas fired boiler, identified as B1, for extruder autoclave curing, with a maximum operating capacity rating of 8.37 mmBtu/hr, and exhausting to one (1) stack, identified as B1. The boiler was installed in 1994;
- (b) Eleven (11) forced air space heaters, identified as H1 through H11, with a maximum capacity of 0.125 mmBtu/hr each, and exhausting to eleven (11) stacks, identified as H1 through H11. All units were installed in 1994;
- (c) Four (4) forced air space heaters, identified as H12 through H15, with a maximum capacity of 0.075 mmBtu/hr each, and exhausting to four (4) stacks, identified as H12 through H15. All units were installed in 1994;
- (d) One (1) electric silicone rubber boot cure oven, identified as BCO-1, with a maximum capacity of 198 pounds per hour, and exhausting to one (1) stack, identified as BC0-1. The boot cure oven was installed in 1994;
- (e) One (1) silicone mixer, identified as SCMx-1, one (1) silicone compound mill, identified as SCML-1, with particulate matter emissions from each emissions unit controlled by a series of three (3) baghouses, identified as BH-1, BH-2, and BH-3, with a combined maximum flowrate of 10,000 acfm. Two (2) silicone compounding extruders, identified as SCEX-1 and SCEX-2. The maximum capacity of each emission unit is 800 pounds per hour and all units were installed in 1994;
- (f) Fourteen (14) latex paraffin coating towers, identified as LCT-1 through LCT-14, with a combined maximum capacity of 65,100 feet per hour. All units were installed in 1994;
- (g) One (1) EPDM rubber cold cure extruder, identified as CE-1, with a maximum capacity of 500 pounds per hour. CE-1 was installed in 1994;
- (h) Two (2) EPDM rubber extrusion and autoclave cure machines, identified as CV-1 and CV-2, with a maximum capacity of 500 pounds per hour each. CV-1 and CV-2 were installed in 1994;

- (i) One (1) silicone rubber extrusion and autoclave cure machine, identified as CV-3, with a maximum capacity of 500 pounds per hour. CV-3 was installed in 1994;
- (j) One (1) silicone rubber direct air cure extrusion, identified as HAV-1, with a maximum capacity of 250 pounds per hour. HAV-1 was installed in 1994;
- (k) Three (3) wire marking roll coat applicators for emission units CV-2, CV-3, and HAV-1. The roll coat applicators are identified as WM-1, WM-2, and WM-3, and have a maximum combined capacity of 39,700 feet per hour. WM-1, WM-2, and WM-3 were installed in 1994;
- (l) Ink jet markers used for marking boxes used in assembly, identified as BMO-1, with a maximum capacity of 500 markers per hour. BMO-1 was installed in 1994;
- (m) Two (2) parts washers used in the maintenance area, identified as MPW-1 and MPW-2, with a maximum capacity of 0.33 gallons per day each. MPW-1 and MPW-2 were installed in 1994;
- (n) One (1) parts washer used in the extruder area, identified as EPW-1, with a maximum capacity of 0.33 gallons per day. EPW-1 was installed in 1994;
- (o) One (1) parts washer used in the latex coating tower area, identified as TPW-1, with a maximum capacity of 0.33 gallons per day. TPW-1 was installed in 1994;
- (p) Two (2) maintenance welders, identified as W1 and W2, with a maximum capacity of 1 pound of electrode per hour per unit. Two (2) oxyacetylene torches, identified as O1 and O2, with a maximum capacity of 6 inches per minute per unit. All units were installed in 1994; and
- (q) Three (3) direct exchange air makeup units, identified as A1, A2, and A3, with a maximum capacity of 1.1 mmBtu/hr each. All units were installed in 1994.

The following conditions shall be applicable:

Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the silicone mixer, identified as SCMX-1, the silicone compound mill, identified as SCML-1, and the silicone compounding extruders, identified as SCEX-1 and SCEX-2, shall be limited to less than 5.62 pounds per hour when operating at a combined process weight rate of 1.6 tons per hour.

Pursuant to 326 IAC 6-2-4(a) (Particulate Emission Limitations for Sources of Indirect Heating), the particulate matter emissions from the 8.37 mmBtu per hour heat input boiler, identified as B1, which began operation in 1994 shall be limited to 0.6 pounds per mmBtu heat input.

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall operate the degreasers, identified as MPW-1, MPW-2, EPW-1, and TPW-1, with the following requirements:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

To ensure that each surface coating operation (LCT-1 through LCT-14, WM-1, WM-2, WM-3, and BMO-1) continues to emit less than fifteen (15) pounds of VOC per day and thus preclude applicability of 326 IAC 8-2-1(a), the Permittee shall maintain the records specified below. Records shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or VOC emission limits. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

- (a) The VOC content of each coating material and solvent used.
- (b) The amount of coating material and solvent less water used on a daily basis.
 - (1) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (2) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
- (c) The volume weighted VOC content of the coatings used for each day;
- (d) The cleanup solvent usage for each day; and
- (e) The total VOC usage for each day.

This registration is the first air approval issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

**Compliance Data Section
Office of Air Quality
100 North Senate Avenue
Indianapolis, IN 46204-2251**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed By:
Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

TW/EVP

cc: File – St. Joseph County
St. Joseph County Health Department
Air Compliance – Rick Reynolds
Northern Regional Office
Permit Tracking
Compliance Data Section

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	Standard Motor Products, Inc.
Address:	1718 North Home Street, Mishawaka, Indiana 46545
City:	Mishawaka
Authorized individual:	Gerald Anton
Phone #:	(574) 259-6253
Registration #:	141-22812-00559

I hereby certify that Standard Motor Products, Inc. is still in operation and is in compliance with the requirements of Registration 141-22812-00559.

Name:	Gerald Anton
Title:	Plant Manager
Signature:	
Date:	

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	Standard Motor Products, Inc.
Source Location:	1718 N. Home Street, Mishawaka, Indiana 46545
County:	St. Joseph
SIC Code:	3694
Registration No.:	141-22812-00559
Permit Reviewer:	Tanya White / EVP

The Office of Air Quality (OAQ) has reviewed an application from Standard Motor Products, Inc., relating to the operation of an automotive ignition wire set manufacturing plant.

This review serves as the first-time registration for this source. The Permittee did not register its source in a timely manner by December 25, 1999 as required pursuant to 326 IAC 2-5.5.2(c).

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted emission units:

- () One (1) natural gas fired boiler, identified as B1, for extruder autoclave curing, with a maximum operating capacity rating of 8.37 mmBtu/hr, and exhausting to one (1) stack, identified as B1. The boiler was installed in 1994;
- () Eleven (11) forced air space heaters, identified as H1 through H11, with a maximum capacity of 0.125 mmBtu/hr each, and exhausting to eleven (11) stacks, identified as H1 through H11. All units were installed in 1994;
- () Four (4) forced air space heaters, identified as H12 through H15, with a maximum capacity of 0.075 mmBtu/hr each, and exhausting to four (4) stacks, identified as H12 through H15. All units were installed in 1994;
- () One (1) electric silicone rubber boot cure oven, identified as BCO-1, with a maximum capacity of 198 pounds per hour, and exhausting to one (1) stack, identified as BC0-1. The boot cure oven was installed in 1994;
- () One (1) silicone mixer, identified as SCMx-1, one (1) silicone compound mill, identified as SCML-1, with particulate matter emissions from each emissions unit controlled by a series of three (3) baghouses, identified as BH-1, BH-2, and BH-3, with a combined maximum flowrate of 10,000 acfm. Two (2) silicone compounding extruders, identified as SCEX-1 and SCEX-2. The maximum capacity of each emission unit is 800 pounds per hour and all units were installed in 1994;
- () Fourteen (14) latex paraffin coating towers, identified as LCT-1 through LCT-14, with a combined maximum capacity of 65,100 feet per hour. All units were installed in 1994;
- () One (1) EPDM rubber cold cure extruder, identified as CE-1, with a maximum capacity of 500 pounds per hour. CE-1 was installed in 1994;

- () Two (2) EPDM rubber extrusion and autoclave cure machines, identified as CV-1 and CV-2, with a maximum capacity of 500 pounds per hour each. CV-1 and CV-2 were installed in 1994;
- () One (1) silicone rubber extrusion and autoclave cure machine, identified as CV-3, with a maximum capacity of 500 pounds per hour. CV-3 was installed in 1994;
- () One (1) silicone rubber direct air cure extruder, identified as HAV-1, with a maximum capacity of 250 pounds per hour. HAV-1 was installed in 1994;
- () Three (3) wire marking roll coat applicators for emission units CV-2, CV-3, and HAV-1. The roll coat applicators are identified as WM-1, WM-2, and WM-3, and have a maximum combined capacity of 39,700 feet per hour. WM-1, WM-2, and WM-3 were installed in 1994;
- () Ink jet markers used for marking boxes used in assembly, identified as BMO-1, with a maximum capacity of 500 markers per hour. BMO-1 was installed in 1994;
- () Two (2) parts washers used in the maintenance area, identified as MPW-1 and MPW-2, with a maximum capacity of 0.33 gallons per day each. MPW-1 and MPW-2 were installed in 1994;
- () One (1) parts washer used in the extruder area, identified as EPW-1, with a maximum capacity of 0.33 gallons per day. EPW-1 was installed in 1994;
- () One (1) parts washer used in the latex coating tower area, identified as TPW-1, with a maximum capacity of 0.33 gallons per day. TPW-1 was installed in 1994;
- () Two (2) maintenance welders, identified as W1 and W2, with a maximum capacity of 1 pound of electrode per hour per unit. Two (2) oxyacetylene torches, identified as O1 and O2, with a maximum capacity of 6 inches per minute per unit. All units were installed in 1994; and
- () Three (3) direct exchange air makeup units, identified as A1, A2, and A3, with a maximum capacity of 1.1 mmBtu/hr each. All units were installed in 1994.

Existing Approvals

There are no previous approvals for this source.

Enforcement Issue

IDEM is aware that the Permittee did not apply for a registration in a timely manner. IDEM is reviewing this matter and will take appropriate action.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
B1	Boiler Stack	24	1.00	2,500	500
H1-H11	Space Heating Stack	24	0.50	1,500	450
H12-H15	Space Heating Stack	24	0.33	1,250	400
BC0-1	Boot Cure Oven	16	0.50	500	250

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 17, 2006.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 15).

Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	1.15
PM-10	1.49
SO ₂	0.04
VOC	13.15
CO	4.91
NO _x	5.85

HAPs	Potential to Emit (tons/yr)
Toluene	3.40
Cumene	1.99
MEK	1.77
Formaldehyde	0.05
TCE	0.001
Manganese	0.005
Hexane	0.11
Combined HAPs	8.09

- (q) The potential to emit of all criteria pollutants are less than 25 tons per year and the potential to emit of VOC is greater than levels listed in 326 IAC 2-1.1-3(e), Exemptions. Therefore, the source is subject to the provisions of 326 IAC 2-5.5, Registrations. A registration will be issued.
- (q) The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM-10	Attainment
PM-2.5	Attainment
SO ₂	Attainment
NO ₂	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Moderate Nonattainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) St. Joseph County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability for the source section.
- (q) St. Joseph County has been classified as attainment in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (q) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	0.92
PM-10	1.25
SO ₂	0.04
VOC	13.15
CO	4.91
NO _x	5.85

HAPs	Potential to Emit (tons/yr)
Toluene	3.40
Cumene	1.99
MEK	1.77
Formaldehyde	0.05
TCE	0.001
Manganese	0.005
Hexane	0.11
Combined HAPs	8.09

- () This existing source is not a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or greater, no attainment regulated pollutants is emitted at a rate of 250 tons per year or greater, and it is not one of the 28 listed source categories.
- (b) These emissions were based on the information provided by the in the source (see Appendix A for emission calculations).

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

The total emissions indicated in this Registration R-039-22554-00292, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

Federal Rule Applicability

- () There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this review.
- () There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in this review.
- () The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, (40 CFR 63, Subpart DDDDD) are not included for the one (1) process boiler (B1), with a maximum heat input capacity of 8.37 mmBtu/hr, because the requirements of 40 CFR 63 Subpart DDDDD are not applicable to sources that are minor sources of HAPs as defined in 40 CFR 63.2 or 40 CFR 63.761.
- () The parts cleaners (MPW-1, MPW-2, EPW-1, and TPW-1) are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Halogenated Solvent Cleaning, (40 CFR 63, Subpart T) because it does not use any solvent containing more than 5% of methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This source is not subject to this rule because potential uncontrolled emissions of all criteria pollutants are less than 250 tons per year. This source is also not one of the 28 listed source categories. Therefore, this source is not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).

326 IAC 2-3 (Emission Offset)

This source is not subject to the requirements of 326 IAC 2-3 because the source is located in St. Joseph County, which is classified as a moderate 8-hour ozone nonattainment area and the source has the potential to emit less than 100 tons per year for each of VOC and NOx.

326 IAC 2-6 (Emission Reporting)

Pursuant to 326 IAC 2-6-1, this source is not subject to this rule because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake or Porter counties, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the permit:

- () Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- () Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability – Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this source will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-2, the particulate emission rate from the silicone mixer, identified as SCM-1, the silicone compound mill, identified as SCML-1, and the silicone compounding extruders, identified as SCEX-1 and SCEX-2, shall be limited to less than 5.62 pounds per hour when operating at a combined process weight rate of 1.6 tons per hour.

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

In this case $P = 1.6$ tons/hr, therefore:

$$E = 4.10 (1.6)^{0.67} = 5.62 \text{ lbs/hr}$$

The uncontrolled combined PM emission rate from the silicone mixer, silicone compound mill, and silicone compounding extruders, is 0.055 lbs/hr which is less than the maximum allowable PM emission rate of 5.62 lbs/hr. Therefore, the three (3) baghouses (BH-1, BH-2, and BH-3) controlling PM emissions from the silicone mixer, silicone compound mill, and silicone compounding extruders are not required, in order to comply with this limit.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

- (1) The welding operations utilize less than six hundred twenty-five (625) pounds of rod or wire per day. Pursuant to 326 IAC 6-3-1(b)(9), the welding operations are exempt from the requirements of 326 IAC 6-3.
- (2) The torch cutting operations cut less than three thousand four hundred (3,400) inches per hour of wire stock, with a one (1) inch in thickness or less. Pursuant to 326 IAC 6-3-1(b)(10), the torch cutting operations are exempt from the requirements of 326 IAC 6-3.
- (3) The roll coating operations (latex paraffin coating towers, wire marking roll coat applicators, and ink jet markers) have a combined PM potential to emit of less than 0.551 pounds per hour. Pursuant to 326 IAC 6-3-1(b)(14), operations that have a PM potential to emit of less than 0.551 lb/hr are exempt from the requirements of 326 IAC 6-3-2.

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-4(a) (Particulate Matter Emission Limitations for Sources of Indirect Heating), indirect heating units which have 10 mmBtu/hr or less and which began operation after September 21, 1983, shall in no case exceed 0.6 lb/mmBtu heat input.

This limitation is based on the lesser of the following equation or 0.6 lb/mmBtu:

$$Pt = 1.09/Q^{0.26}$$

where: Pt = maximum allowable particulate matter (PM) emitted per mmBtu heat input
Q = total source maximum indirect heater input = 8.37 mmBtu/hr

$$Pt = 1.09/8.37^{0.26} = 0.63 \text{ lbs PM/mmBtu}$$

Therefore, the PM emissions from the boiler, identified as B1, with a rating capacity of 8.37 mmBtu per hour heat input and installed in 1994, shall be limited to 0.6 pounds per mmBtu heat input each.

Boiler PM Compliance Determination:

$$1.9 \text{ lb/mmscf} * 1/1000 \text{ (scf/btu)} = 0.0019 \text{ lb PM/mmBtu}$$

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The combustion units at this source are not subject to the requirements of this rule because potential SO₂ emissions are less than 25 tons per year or 10 pounds per hour.

326 IAC 8-3-2 (Cold Cleaner Operations)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall operate the degreasers, identified as MPW-1, MPW-2, EPW-1, and TPW-1, with the following requirements:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The cold cleaner degreaser operations are not subject to the requirements of 326 IAC 8-3-5 because the degreasing operations are equipped with remote solvent reservoirs.

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

This source is not subject to the requirements of 326 IAC 8-1-6 because potential emissions are less than twenty-five (25) tons of VOC per year.

326 IAC 8-2 (Surface Coating Limitations)

- (1) Pursuant to 326 IAC 8-2-1(a)(4) the latex paraffin coating towers, ink jet markers, and wire marking operations, located in St. Joseph County and constructed after July 1, 1990, are not subject to the requirements of 326 IAC 8-2 because each surface coating operation has actual emissions of less than fifteen (15) pounds of VOC per day. There are no add-on controls for these operations.
- (2) The wire marking operations utilize at a maximum of 1 gallon of coating per day. Therefore the actual VOC usage from wire marking operations are less than 15 pounds per day and they are not subject to any 326 IAC 8-2 rules (including 326 IAC 8-2-4, Coil coating operations).
- (3) The box marking operations utilize at a maximum of 1 gallon of coating per day. Therefore the actual VOC usage from box marking operations are less than 15 pounds per day and they are not subject to any 326 IAC 8-2 rules.
- (4) To ensure that each surface coating operation (LCT-1 through LCT-14, WM-1, WM-2, WM-3, and BMO-1) continues to emit less than fifteen (15) pounds of VOC per day and thus preclude applicability of 326 IAC 8-2-1(a), the Permittee shall maintain daily records. Records shall be complete and sufficient to establish compliance with the VOC usage limits and/or VOC emission limits.

Conclusion

The operation of this automotive ignition wire set manufacturing plant shall be subject to the conditions of Registration No. 141-22812-00559.

Appendix A: Emission Calculations

Summary of Source Wide Emissions

Company Name: Standard Motor Products, Inc.
Address City IN Zip: 1718 N. Home Street, Mishawaka, IN, 46545
Permit Number: R141-22812-00559
Pit ID: 141-00559
Reviewer: Tanya White / EVP
Date: April, 2006

Uncontrolled Potential Emissions (tons/year)

Emissions Generating Activity

Pollutant	Combustion Sources	Welding and Thermal Cutting	Parts Washers	Boot Cure Oven	Box Marking Operations	Wire Marking	Extruding and Curing (HAV-1)	Extruding and Curing (CV-3)	Extruding and Curing (CV-1 and CV-2)	Extruding and Curing (CE-1)	Latex Coating Towers	Silicone Compounding and Milling (Baghouses)	Compounding and Extruding	Total (tpy)
PM	0.11	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.24	1.15
PM10	0.44	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.24	1.49
SO2	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
NOx	5.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.85
VOC	0.32	0.00	0.81	0.42	1.76	3.89	0.55	0.75	2.97	0.09	1.44	0.00	0.14	13.15
CO	4.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.91
total HAPs	0.11	0.00	0.00	0.08	1.77	3.62	0.10	0.14	2.14	0.04	0.05	0.00	0.03	8.09
worst case single HAP	0.11	0.00	0.00	0.02	1.77	3.40	0.03	0.04	1.87	0.02	0.05	0.00	0.01	
	Hexane	Manganese	TCE	Cumene	MEK	Toluene	Cumene	Cumene	Cumene	Cumene	Formaldehyde		Cumene	

Total emissions based on rated capacity at 8,760 hours/year.

Controlled Potential Emissions (tons/year)

Emissions Generating Activity

Pollutant	Combustion Sources	Welding and Thermal Cutting	Parts Washers	Boot Cure Oven	Box Marking Operations	Wire Marking	Extruding and Curing (HAV-1)	Extruding and Curing (CV-3)	Extruding and Curing (CV-1 and CV-2)	Extruding and Curing (CE-1)	Latex Coating Towers	Silicone Compounding and Milling (Baghouses)	Compounding and Extruding	Total (tpy)
PM	0.11	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.92
PM10	0.44	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	1.25
SO2	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
NOx	5.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.85
VOC	0.32	0.00	0.81	0.42	1.76	3.89	0.55	0.75	2.97	0.09	1.44	0.00	0.14	13.15
CO	4.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.91
total HAPs	0.11	0.00	0.00	0.08	1.77	3.62	0.10	0.14	2.14	0.04	0.05	0.00	0.03	8.09
worst case single HAP	0.11	0.00	0.00	0.02	1.77	3.40	0.03	0.04	1.87	0.02	0.05	0.00	0.01	
	Hexane	Manganese	TCE	Cumene	MEK	Toluene	Cumene	Cumene	Cumene	Cumene	Formaldehyde	0.00	Cumene	

Total emissions based on rated capacity at 8,760 hours/year, after control.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100**

Company Name: Standard Motor Products, Inc.
Address City IN Zip: 1718 N. Home Street, Mishawaka, IN, 46545
Permit Number: R141-22812-00559
Plt ID: 141-00559
Reviewer: Tanya White / EVP
Date: April, 2006

EMU ID	Description	Heat Input Capacity (mmBtu/hr)
B1	Process Boiler	8.370
H1-H11	Space Heaters	1.375
H12-H15	Space Heaters	0.300
A1-A3	Air Makeup Units	3.300
Total =		13.345

Potential Throughput

MMCF/yr

116.9

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.11	0.44	0.04	5.85	0.32	4.91

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions**

Company Name: Standard Motor Products, Inc.
Address City IN Zip: 1718 N. Home Street, Mishawaka, IN, 46545
Permit Number: R141-22812-00559
Pit ID: 141-00559
Reviewer: Tanya White / EVP
Date: April, 2006

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.227E-04	7.014E-05	4.384E-03	1.052E-01	1.987E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	2.923E-05	6.430E-05	8.183E-05	2.221E-05	1.227E-04

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Welding and Thermal Cutting

Company Name: Standard Motor Products, Inc.
Address City IN Zip: 1718 N. Home Street, Mishawaka, IN, 46545
Permit Number: R141-22812-00559
Pft ID: 141-00559
Reviewer: Tanya White / EVP
Date: April, 2006

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING												
Metal Inert Gas (MIG)(carbon steel)	2	1		0.0055	0.0005	0.000001	0.000001	0.011	0.001	0.000	0.000002	0.001
E70S												
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxyacetylene	2	1	6	0.1622	0.0005	0.0001	0.0003	0.117	0.000	0.000	0.000	0.000
EMISSION TOTALS												
Potential Emissions lbs/hr								0.13	0.00	0.00	0.00	0.00
Potential Emissions lbs/day								3.07	0.02	0.00	0.00	0.02
Potential Emissions tons/year								0.56	0.00	0.00	0.00	0.00

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

**Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculating the emissions.

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" t

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lb

Appendix A: Emissions Calculations
Parts Washers

Company Name: Standard Motor Products, Inc.
Address City IN Zip: 1718 N. Home Street, Mishawaka, IN, 46545
Permit Number: R141-22812-00559
Plt ID: 141-00559
Reviewer: Tanya White / EVP
Date: April, 2006

Parts Washer Identification	Solvent Name	Solvent Density (lb/gal)	Annual Solvent Usage (gal)	Weight Percent VOC	Annual VOC Emission Rate (tpy)	Weight Percent TCE	Annual TCE Emission Rate (tpy)
MPW-1	Premium Gold Solvent	6.80	120.45	100.0%	0.41	0.0%	0.00
MPW-2	105 Recycled Solvent	6.70	120.45	100.0%	0.40	0.2%	0.0008
EPW-1	Aqua Works MM-Dip	8.43	120.45	0.0%	0.00	0.0%	0.00
TPW-1	Aqua Works MPC Cleaning Solution	8.30	120.45	0.0%	0.00	0.0%	0.00

Potential Emissions (tpy) = 0.81 0.0008

METHODOLOGY

Annual Emissions Rate (tpy) = Solvent Density (lb/gal) * Maximum Annual Throughput (gal/yr) * Weight % of pollutant / 2000 (lb/ton)

Potential Emissions (tpy) = Sum of Annual Emissions Rate for All Four Parts Washers

Emission Factors Source: Manufacturer Data

Appendix A: Emissions Calculations
Electric Silicone Rubber Boot Cure Oven

Company Name: Standard Motor Products, Inc.
Address City IN Zip: 1718 N. Home Street, Mishawaka, IN, 46545
Permit Number: R141-22812-00559
Plt ID: 141-00559
Reviewer: Tanya White / EVP
Date: April, 2006

Pollutant	Curing Emission Factor (lb/lb rubber)	Emission Factor (lb/hr)	Maximum Capacity (lb/hr)	Maximum Capacity (lb/yr)	Potential Emissions (tpy)
VOC	4.88E-04	9.70E-02	198	1734480.00	0.42
PM	0.00E+00	0.00E+00	198	1734480.00	0.00
Total HAPS	9.08E-05	1.80E-02	198	1734480.00	0.08
Cumeme	2.60E-05	5.10E-03	198	1734480.00	0.02
Acetophenone	6.11E-07	1.21E-04	198	1734480.00	0.00

METHODOLOGY

Potential Emissions (tpy) = Emissions Factor (lb/hr) * 8,760 (hr/yr) / 2,000 (lb/ton)

Emission Factors Source: AP-42 Section 4.12 (Table 4.12-10)

**Appendix A: Emissions Calculations
VOC, Particulate, and HAPs
Box Marking Operations**

Company Name: Standard Motor Products, Inc.
Address City IN Zip: 1718 N. Home Street, Mishawaka, IN, 46545
Permit Number: R141-22812-00559
Pit ID: 141-00559
Reviewer: Tanya White / EVP
Date: April, 2006

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency*	Weight % MEK	MEK Emissions (tpy)	Total HAP Emissions (tpy)
801i-C Ink	7.75	65.42%	0.0%	65.42%	0.0%	25.00%	2.85E-06	500.000	5.07	5.07	0.01	0.17	0.03	0.00	20.28	100%	70%	0.03	0.03
121C Makeup	6.76	100.00%	0.0%	100.00%	0.0%	0.00%	8.10E-05	500.000	6.76	6.76	0.27	6.57	1.20	0.00	#DIV/0!	100%	100%	1.20	1.20
100Q Wash	6.76	100.00%	0.0%	100.00%	0.0%	0.00%	3.60E-05	500.000	6.76	6.76	0.12	2.92	0.53	0.00	#DIV/0!	100%	100%	0.53	0.53

Potential Emissions (tpy) = 0.40 9.66 1.76 0.00 1.77 1.77

* Coating roll applied

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Potential HAPs Tons per Year = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Emission Factors Source: Manufacturer Data

**Appendix A: Emissions Calculations
VOC, Particulate, and HAPs
Wire Marking Operations for CV-1, CV-2, CV-3, and HAV-1**

Company Name: Standard Motor Products, Inc.
Address City IN Zip: 1718 N. Home Street, Mishawaka, IN, 46545
Permit Number: R141-22812-00559
Plt ID: 141-00559
Reviewer: Tanya White / EVP
Date: April, 2006

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)**	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency*	Weight % Toluene	Toluene Emissions (tpy)	Weight % Xylene	Xylene Emissions (tpy)	Total HAP Emissions (tpy)
GEM Ink #1013	7.70	75.90%	0.0%	75.90%	0.0%	18.80%	3.40E-06	39700.00	5.84	5.84	0.79	18.93	3.46	0.00	31.09	100%	66.1%	3.01	4.9%	0.22	3.23
Ink Extender 1072	7.28	100.00%	0.0%	100.00%	0.0%	0.00%	3.40E-07	39700.00	7.28	7.28	0.10	2.36	0.43	0.00	#DIV/0!	100%	90.0%	0.39	0.0%	0.00	0.39

Potential Emissions (tpy) = 0.89 21.29 3.89 0.00 3.40 0.22 3.62

* Coating roll applied
 **Unit = 1 feet wire produced

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
 Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
 Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
 Potential HAPs Tons per Year = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
 Emission Factors Source: Manufacturer Data

**Appendix A: Emissions Calculations
Silicone Rubber Extruding and Curing (HAV-1)**

Company Name: Standard Motor Products, Inc.
Address City IN Zip: 1718 N. Home Street, Mishawaka, IN, 46545
Permit Number: R141-22812-00559
Plt ID: 141-00559
Reviewer: Tanya White / EVP
Date: April, 2006

Pollutant	Extrusion Emission Factor (lb/lb rubber)	Curing Emission Factor (lb/lb rubber)	Extrusion Emission Factor (lb/hr)	Curing Emission Factor (lb/hr)	Combined Emission Factor (lb/hr)	Maximum Capacity (lb/hr)	Maximum Capacity (lb/yr)	Potential Emissions (tpy)
VOC	1.06E-05	4.88E-04	3.00E-03	1.22E-01	1.25E-01	250	2190000.00	0.55
PM	8.32E-09	0.00E+00	2.08E-06	0.00E+00	2.08E-06	250	2190000.00	9.11E-06
Total HAPS	1.98E-06	9.08E-05	5.00E-04	2.27E-02	2.32E-02	250	2190000.00	0.10
Cumeme	5.66E-07	2.60E-05	1.00E-04	6.50E-03	6.60E-03	250	2190000.00	0.03
Acetophenone	1.33E-08	6.11E-07	3.00E-06	2.00E-04	2.03E-04	250	2190000.00	0.00

METHODOLOGY

Potential Emissions (tpy) = Combined Emissions Factor (lb/hr) * 8,760 (hr/yr) / 2,000 (lb/ton)

Emission Factors Source: AP-42 Section 4.12 (Table 4.12-6)

**Appendix A: Emissions Calculations
Silicone Rubber Extruding and Curing (CV-3)**

Company Name: Standard Motor Products, Inc.
Address City IN Zip: 1718 N. Home Street, Mishawaka, IN, 46545
Permit Number: R141-22812-00559
Plt ID: 141-00559
Reviewer: Tanya White / EVP
Date: April, 2006

Pollutant	Extrusion Emission Factor (lb/lb rubber)	Curing Emission Factor (lb/lb rubber)	Extrusion Emission Factor (lb/hr)	Curing Emission Factor (lb/hr)	Combined Emission Factor (lb/hr)	Maximum Capacity (lb/hr)	Maximum Capacity (lb/yr)	Potential Emissions (tpy)
VOC	1.06E-05	3.35E-04	5.00E-03	1.67E-01	1.72E-01	500	4380000.00	0.75
PM	8.32E-09	0.00E+00	4.00E-06	0.00E+00	4.00E-06	500	4380000.00	1.75E-05
Total HAPS	1.98E-06	6.24E-05	1.00E-03	3.12E-02	3.22E-02	500	4380000.00	0.14
Cumeme	5.66E-07	1.79E-05	3.00E-04	8.90E-03	9.20E-03	500	4380000.00	0.04
Acetophenone	1.33E-08	4.20E-07	1.00E-05	2.00E-04	2.10E-04	500	4380000.00	0.00

METHODOLOGY

Potential Emissions (tpy) = Combined Emissions Factor (lb/hr) * 8,760 (hr/yr) / 2,000 (lb/ton)

Emission Factors Source: AP-42 Section 4.12 (Table 4.12-6)

Appendix A: Emissions Calculations
Silicone Rubber Extruding and Curing (CV-1 and CV-2)

Company Name: Standard Motor Products, Inc.
Address City IN Zip: 1718 N. Home Street, Mishawaka, IN, 46545
Permit Number: R141-22812-00559
Plt ID: 141-00559
Reviewer: Tanya White / EVP
Date: April, 2006

Pollutant	Extrusion Emission Factor (lb/lb rubber)	Curing Emission Factor (lb/lb rubber)	Extrusion Emission Factor (lb/hr)	Curing Emission Factor (lb/hr)	Combined Emission Factor (lb/hr)	Maximum Capacity (lb/hr)	Maximum Capacity (lb/yr)	Potential Emissions (tpy)
VOC	3.51E-05	6.43E-04	3.50E-02	6.43E-01	6.78E-01	500	4380000.00	2.97
PM	1.51E-08	0.00E+00	1.51E-05	0.00E+00	1.51E-05	500	4380000.00	6.61E-05
Total HAPS	1.89E-05	4.70E-04	1.90E-02	4.70E-01	4.89E-01	500	4380000.00	2.14
Cumeme	8.18E-06	4.19E-04	8.00E-03	4.20E-01	4.28E-01	500	4380000.00	1.87
Acetophenone	1.82E-06	7.90E-06	2.00E-03	7.90E-03	9.90E-03	500	4380000.00	0.04

METHODOLOGY

Potential Emissions (tpy) = Combined Emissions Factor (lb/hr) * 8,760 (hr/yr) / 2,000 (lb/ton)

Emission Factors Source: AP-42 Section 4.12 (Table 4.12-6)

**Appendix A: Emissions Calculations
Silicone Rubber Extruding and Curing (CE-1)**

Company Name: Standard Motor Products, Inc.
Address City IN Zip: 1718 N. Home Street, Mishawaka, IN, 46545
Permit Number: R141-22812-00559
Plt ID: 141-00559
Reviewer: Tanya White / EVP
Date: April, 2006

Pollutant	Extrusion Emission Factor (lb/lb rubber)	Extrusion Emission Factor (lb/hr)	Maximum Capacity (lb/hr)	Maximum Capacity (lb/yr)	Potential Emissions (tpy)
VOC	3.51E-05	2.00E-02	500	4380000.00	0.09
PM	1.51E-08	7.55E-06	500	4380000.00	3.31E-05
Total HAPS	1.89E-05	1.00E-02	500	4380000.00	0.04
Cumeme	8.18E-06	4.00E-03	500	4380000.00	0.02
Acetophenone	1.82E-06	1.00E-03	500	4380000.00	0.00

METHODOLOGY

Potential Emissions (tpy) = Combined Emissions Factor (lb/hr) * 8,760 (hr/yr) / 2,000 (lb/ton)

Emission Factors Source: AP-42 Section 4.12 (Table 4.12-6)

Appendix A: Emissions Calculations

Three (3) Baghouses for Controlling Silicone Mixing and Compound Milling Particulate Matter Emissions

Company Name: Standard Motor Products, Inc.
Address City IN Zip: 1718 N. Home Street, Mishawaka, IN, 46545
Permit Number: R141-22812-00559
Plt ID: 141-00559
Reviewer: Tanya White / EVP
Date: April, 2006

Pollutant	Design Outlet Grain Loading (grains/acf)	Combined Maximum air flowrate (acfm)	Maximum Process Throughput (tons/hr)	Control Efficiency (%)	Controlled Emissions (lb/hr)	Controlled Potential Emissions (ton/yr)	Uncontrolled Emissions (lb/hr)	Uncontrolled Potential Emissions (ton/yr)
PM	1.29E-05	10,000	0.40	98%	0.0011	0.0048	0.06	0.2422

METHODOLOGY

Controlled Emissions (lb/hr) = Design Outlet Grain Loading (grains/acf) * Flowrate (acf/min) * 60 (min/hr) * 1/7000 (grains/lb)

Controlled Emissions (tpy) = Design Outlet Grain Loading (grains/acf) * Flowrate (acf/min) * 60 (min/hr) * 1/7000 (grains/lb) * 8,760 (hr/yr) / 2000 (lb/ton)

Uncontrolled Emissions (lb/hr) = Controlled Emissions (lb/hr) / (1 - Control Efficiency %)

Appendix A: Emissions Calculations
Silicone Rubber Compounding and Extruding (SCMX-1, SCML-1, SCEX-1, SCEX-2)

Company Name: Standard Motor Products, Inc.
Address City IN Zip: 1718 N. Home Street, Mishawaka, IN, 46545
Permit Number: R141-22812-00559
Pit ID: 141-00559
Reviewer: Tanya White / EVP
Date: April, 2006

Pollutant	Milling Emission Factor 1 (lb/lb rubber)	Milling Emission Factor 2 (lb/lb rubber)	Extrusion Emission Factor (lb/lb rubber)	Milling Emission Factor 1 (lb/hr)	Milling Emission Factor 2 (lb/hr)	Extrusion Emission Factor (lb/hr)	Combined Emission Factor (lb/hr)	Maximum Capacity (lb/hr)*	Maximum Capacity (lb/yr)	Potential Emissions (tpy)
VOC	1.98E-05	1.03E-05	1.06E-05	1.60E-02	8.00E-03	8.00E-03	3.20E-02	800	7008000	0.14
PM	6.90E-05	0.00E+00	8.32E-09	5.50E-02	0.00E+00	1.00E-05	5.50E-02	800	7008000	0.24
Total HAPS	3.71E-06	1.91E-06	1.98E-06	3.00E-03	1.50E-03	1.60E-03	6.10E-03	800	7008000	0.03
Cumeme	1.06E-06	5.48E-07	5.66E-07	1.00E-03	4.00E-04	5.00E-04	1.90E-03	800	7008000	0.01
Acetophenone	2.48E-08	1.29E-08	1.33E-08	2.00E-05	1.00E-05	1.00E-05	4.00E-05	800	7008000	0.00

METHODOLOGY

Potential Emissions (tpy) = Combined Emissions Factor (lb/hr) * 8,760 (hr/yr) / 2,000 (lb/ton)

* The Compounding Mixer has a rated throughput of 1,000 lb/hr but the process is bottlenecked by the Compounding Mill (rated at 800 lb/hr)

Emission Factors Source: AP-42 Section 4.12 (Table 4.12-4)